Fina Oil & Chemical
Cosden Chemical Div.

Calumet City, Illinois

ENSR

Report on Soil & Groundwater Sampling

Tract "A" Property

ENSR Constructors

June 1990

Document Number 9500-058-230

ENSR

June 4, 1990

ENSR Constructors
740 Pasquinelli Drive
Suite 124
Westmont, Illinois 60559
708-887-1700

Mr. Shelby Salmon
Fina Oil & Chemical Company
142nd & Paxton Avenue
P. O. Box 178
Calumet City, Illinois 60409

SUBJECT: Results of the Soil and Water Sampling Performed on Fina's Property Designated as Tract "A"

Dear Shelby:

Attached is the report and supporting analytical data for the soil sampling and river water sampling activities which were performed on the portion of your property designated as Tract "A". As is mentioned in the report, none of the compounds tested for were detected above the method detection limits.

If you have any questions on this report or if I may be of any other help, please do not hesitate to call me.

Sincerely,

ENSR CONSTRUCTORS

John J. Schiffgens, II
Project Manager

JJS/bjp

Attachment

ENSR

Formerly ERT

June 4, 1990

ENSR Project No: 9500-058-230

ENSR Consulting
and Engineering
740 Pasquinelli Drive
Westmont, Illinois 60559
(708) 887-1700
FAX (708) 850-5307

Mr. John Schiffgens
Project Manager
ENSR Constructors
740 Pasquinelli Drive
Westmont, Illinois 60559

SUBJECT: Report of the Soil and Surface Water Sampling Investigation Conducted at the Fina Oil and Chemical Company Facility in Calumet City, Illinois

Dear Mr. Schiffgens:

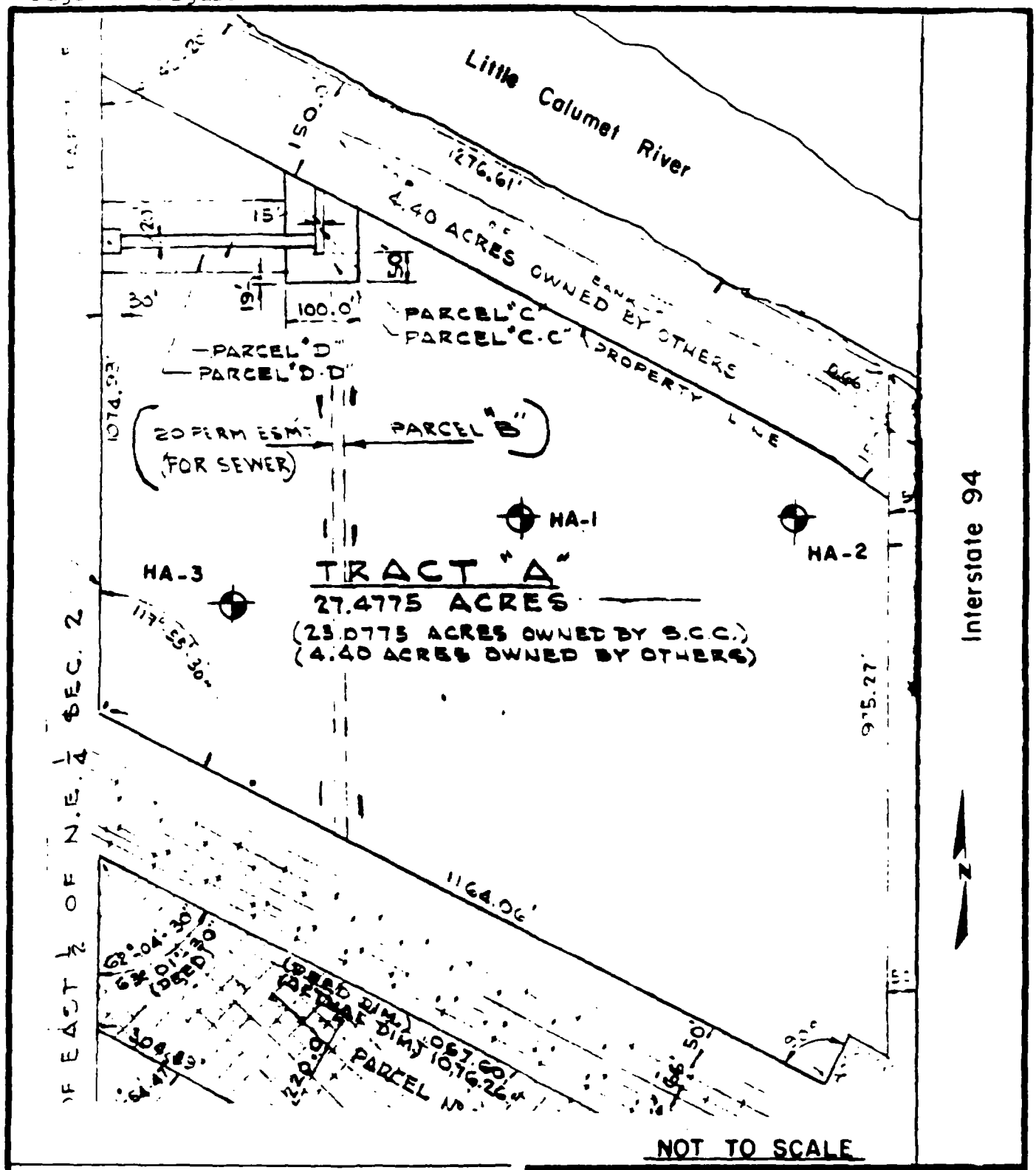
ENSR Consulting and Engineering is pleased to present the results of the soil and surface water sampling investigation conducted at the subject facility. ENSR conducted the sampling on May 11, 1990. This sampling effort was performed to: A) assess potential migration of compounds identified on the Fina site to the Little Calumet River; and, B) obtain gross background readings of select organic compounds on the Fina property referred to as Tract "A".

FIELD ACTIVITIES

Tract A Soil Sampling

Three shallow subsurface soil samples were collected from locations on the approximately 23-acre parcel of land designated Tract "A" (see Figure 1). The parcel of land is located to the west of the Fina Oil and Chemical facility on the west side of Interstate 94.

ENSR's sampling protocol involved ENSR personnel initially performing a reconnaissance walk through Tract A. During the initial reconnaissance of the site, piles of what appeared to be demolition or construction debris, were seen at scattered locations throughout the property. The remainder of the property was heavily overgrown with brush and trees. No streams containing flowing water were observed on the property. Areas of stressed vegetation were not observed on the property.



NOT TO SCALE

LEGEND

⊕ Hand Auger Location

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FIGURE 1
SOIL SAMPLE LOCATION MAP
FINA OIL & CHEMICAL COMPANY
CALUMET CITY, ILLINOIS

DRAWN: EDH	DATE: 5/25/90	PROJECT NUMBER: 9500-058
APP'VD:	REVISED:	DRAWING NUMBER:

The 3 samples (HA-1, HA-2, and HA-3) were collected using a stainless steel hand auger. The sample locations were chosen based on their proximity to nearby piles of demolition or construction debris. The samples were collected at the soil/groundwater interface (typically 2 to 3 feet below ground surface). The hand auger was decontaminated between each sample using an Alconox™ detergent and potable water wash followed by a potable water rinse.

The soil samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and styrene using EPA Method SW-846:8020[1] and for formaldehyde using NIOSH Method 3500[2]. These parameters were chosen to maintain consistency with the other sampling efforts which had been performed at this site.

Surface Water Sampling

In addition to the soil samples, 2 river-water samples (US-A and DS-B) were collected at locations adjacent to the facility along the Little Calumet River. As seen on Figure 2, US-A was located upstream from the facility and DS-B was located downstream from most of the facilities buildings.

Sample US-A was collected from a location to the north of the styrene monomer tanks. This location was selected based on the observation of a rust colored water seeping at the embankment of the river. The river-water sample was collected adjacent to where the seep discharged into the river.

River-water sample DS-B was collected based on an observed spring discharging water along the embankment and flowing into the river. The spring was located to the north of the tall blue tanks (Tank No. 18). DS-B was collected from the river adjacent to where the spring discharged into the river.

Both samples were collected using a decontaminated stainless steel bailer. The bailer was decontaminated using the same procedures described earlier in this report. These samples were also analyzed for BTEX, styrene and formaldehyde. These parameters were chosen because they had been identified at other on-site locations.

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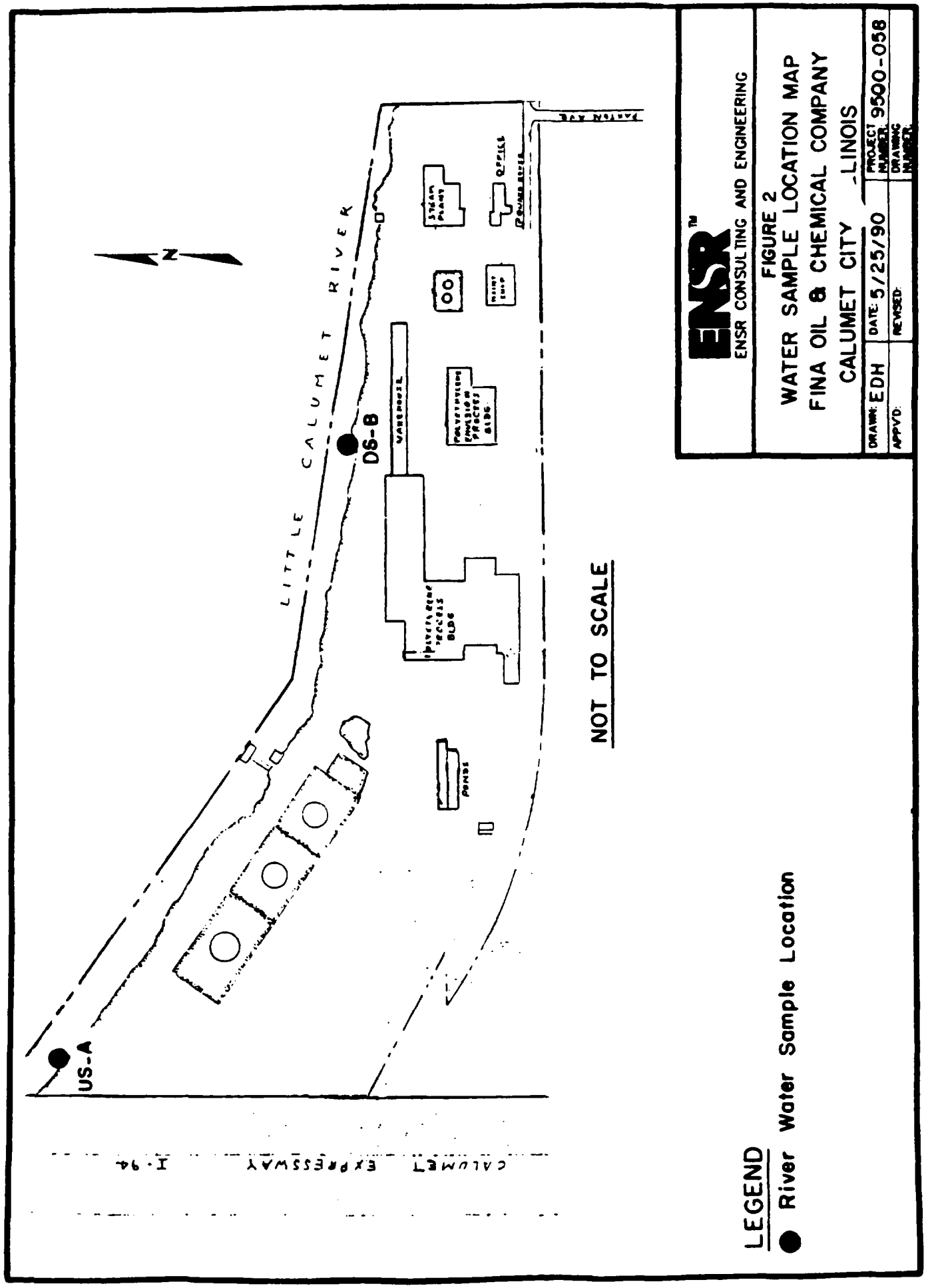
1 EPA methods for Evaluating Solid Wastes - Physical/Chemical Methods, SW-846, 3rd edition, 1986.

2 NIOSH Manual of Analytical Methods - Formaldehyde, Method 3500, 3rd edition, vol. one, 1984.


ENSR™
ENSR CONSULTING AND ENGINEERING
FIGURE 2
WATER SAMPLE LOCATION MAP
FINA OIL & CHEMICAL COMPANY
CALUMET CITY, ILLINOIS
DRAWN: EDH
DATE: 5/25/90
APP'VD:
REVISED:
PROJECT NUMBER: 9500-058
DRAWING NUMBER:
LITTLE CALUMET RIVER
DS-8
US-A
N
NOT TO SCALE
CALUMET EXPRESSWAY I-94
LEGEND
River Water Sample Location

ENSR

All samples were collected using ENSR's Standard Operating Procedures (SOPs) and sent to ENSR's Houston, Texas laboratory under chain-of-custody procedures.

LABORATORY RESULTS

The laboratory results are summarized in Table 1 and the laboratory report is presented in Attachment 1. As seen in Table 1, none of the materials sampled for were detected above the method detection limit.

If you have any questions regarding the field investigation activities or laboratory results, please do not hesitate to call.

Sincerely,

Scott F Symonds

for Tony Dappas
Staff Geologist

TD/js

Enclosure

Reference No. 90-05-S248

TABLE 1

Summary of Analytical Results[1]

Parameter	Water Samples		Soil Samples		
	US-A	DS-B	HA-1 2 to 2.5 ft.	HA-2 2 to 2.5 ft.	HA-3 2.5 to 3 ft.
Benzene	<1[2]	<1	<125	<125	<125
Toluene	<1	<1	<125	<125	<125
Ethylbenzene	<1	<1	<125	<125	<125
Xylene	<1	<1	<125	<125	<125
Styrene	<1	<1	<125	<125	<125
Formaldehyde	<0.250	<0.025	<0.123	<0.300	<0.132

[1] BTEX and Styrene results in parts per billion (ppb) = µg/kg for soil samples and µg/L for water samples. Formaldehyde results in parts per million (ppm) = µg/kg for soil samples and µg/L for water samples.

[2] < indicates the concentration is below the method detection limit. The number following the < is the detection limit.

ATTACHMENT 1

LABORATORY REPORT

ENSR

Formerly ERT

DATE: 05/22/90

TO: John Schiffgens

FROM: Bo Blankfield, Laboratory Director

PROJ. NO.: 9500-058-230 **LAB NO.: A4246**

ENSR Consulting
and Engineering
3000 Richmond Avenue
Houston, Texas 77098
(713) 520-9900
(713) 520-6802 (FAX)

Attached are reports of chemical analyses of samples received May 12, 1990. These analyses are:

Count	Test Code	Test Name	Test Method	Sampled	Matrix
2	BENZ - - -HOU	BENZENE	EPA SW-846: 8020, GC	05/11/90	WATER
3	BENZ -S- -HOU	BENZENE ON SOLID	EPA SW-846: 8020, GC	05/11/90	SOIL
2	EB - - -HOU	ETHYL BENZENE	EPA SW-846: 8020, GC	05/11/90	WATER
3	EB -S- -HOU	ETHYL BENZENE ON SOLID	EPA SW-846: 8020, GC	05/11/90	SOIL
2	FORM - - -KEM	FORMALDEHYDE	NIOSH #3500	05/11/90	WATER
3	FORM -S- -KEM	FORMALDEHYDE	NIOSH #3500	05/11/90	SOIL
2	STYRN- - -HOU	STYRENE	EPA SW-846: 8020, GC	05/11/90	WATER
3	STYRN-S- -HOU	STYRENE ON SOLID	EPA SW-846: 8020, GC	05/11/90	SOIL
2	TOL - - -HOU	TOLUENE	EPA SW-846: 8020, GC	05/11/90	WATER
3	TOL -S- -HOU	TOLUENE ON SOLID	EPA SW-846: 8020, GC	05/11/90	SOIL
2	XYL - - -HOU	XYLENE	EPA SW-846: 8020, GC	05/11/90	WATER
3	XYL -S- -HOU	XYLENE ON SOLID	EPA SW-846: 8020, GC	05/11/90	SOIL

Data contained in this report reflect a full quality control review and have met all applicable standards established by ENSR. ENSR quality assurance protocols are in accordance with EPA guidelines.

Should you have any questions, do not hesitate to contact me at (713) 520-9900.

BB/lis

Enclosures: Analytical Summary, Analytical Report, Chain of Custody, Sample Receipt Checklist, Quality Control Logs, Billing Summary

cc: Tony Dappas

LAB NO. A4246
PROJECT 9500-058-230 Fina

ENSR

Formerly ERT

SAMPLE DISPOSAL LETTER

ENSR Consulting
and Engineering
3000 Richmond Avenue
Houston, Texas 77098
(713) 520-9900
(713) 520-6802 (FAX)

DATE: 05/22/90

TO: John Schiffgens

FROM: Bo Blankfield, Laboratory Director

PROJ. NO.: 9500-058-230 LAB NO.: A4246 RECEIVED:05/12/90
Fina

It is the policy of ENSR Laboratories to dispose of unanalyzed portions of samples thirty days following submittal of the hard copy data package. Samples from lab number A4246 are due for disposal on June 22, 1990.

Please indicate your preference for disposal below and return this form to Lab Receiving personnel by June 8, 1990. No response will be interpreted as permission to return the samples on June 22, 1990.

( )A. ENSR's preferred policy for disposal is to return all remaining samples, including samples not authorized for analysis to the originating site at our expense. This option will be exercised unless this letter is returned with instructions indicating otherwise.

( )B. ENSR will dispose of unused samples, including samples not analyzed, by drumming and transporting by a federally licensed hazardous waste transportation firm at a cost of $5.00/sample. Samples known to be excessively contaminated may be disposed of at a cost of $10.00/sample.

( )C. ENSR will hold your sample at a cost of $15.00/sample per quarter for refrigerated storage or $5.00/sample per quarter for ambient storage. The project will be billed in advance each quarter based upon the number of samples in storage at the beginning of the quarter. The minimum storage fee per project will be $50.00 to cover administrative costs.

Should you have any questions, do not hesitate to contact me at (713) 520-9900.

SIGNATURE: _____

TITLE: _____ DATE: ___/___/___

LAB USE ONLY: DISPOSAL METHOD, DATE, AUTHORIZATION: _____

BB/lis

cc: Tony Dappas

LAB NO. A4246
PROJECT 9500-058-230 Fina

ENSR Labs-Houston

Analytical Summary
05/25/90 11:24

Lab Number: A4246
Project: 9500-058-230
Fina

Lab ID / *Field ID* / *Test /Matrix*	1 US-A WATER	2 DS-B WATER	3 HA-1 2-2.5' SOIL	4 HA-2 2-2.5' SOIL	5 HA-3 2.5-3' SOIL
BENZ - - -HOU (MDL)	<1 UG/L *(1)*	<1 UG/L *(1)*	--	--	--
BENZ -S- -HOU (MDL)	--	--	<125 UG/KG *(125)*	<125 UG/KG *(125)*	<125 UG/KG *(125)*
EB - - -HOU (MDL)	<1 UG/L *(1)*	<1 UG/L *(1)*	--	--	--
EB -S- -HOU (MDL)	--	--	<125 UG/KG *(125)*	<125 UG/KG *(125)*	<125 UG/KG *(125)*
FORM - - -KEM (MDL)	<0.250 MG/L *(0.250)*	<0.025 MG/L *(0.025)*	--	--	--
FORM -S- -KEM (MDL)	--	--	<0.123 MG/KG *(0.123)*	<0.300 MG/KG *(0.300)*	<0.132 MG/KG *(0.132)*
STYRN- - -HOU (MDL)	<1 UG/L *(1)*	<1 UG/L *(1)*	--	--	--
STYRN-S- -HOU (MDL)	--	--	<125 UG/KG *(125)*	<125 UG/KG *(125)*	<125 UG/KG *(125)*
TOL - - -HOU (MDL)	<1 UG/L *(1)*	<1 UG/L *(1)*	--	--	--

Signatures of approval indicate quality assurance-quality control verification of analytical results, billing and enclosed documentation.

Approvals: Brenda F. Bands Date: 5/25/90 Date: 5-25-90

***** CONTINUED *****

ENSR

ENSR Labs-Houston

Analytical Summary
05/22/90 09:13

Lab Number: A4246
Project: 9500-058-230
Fina

Lab ID / *Field ID* / *Test /Matrix*	1 US-A WATER	2 DS-B WATER	3 HA-1 2-2.5' SOIL	4 HA-2 2-2.5' SOIL	5 HA-3 2.5-3' SOIL
TOL -S- -HOU *(MDL)*	--	--	<125 UG/KG *(125)*	<125 UG/KG *(125)*	<125 UG/KG *(125)*
XYL - - -HOU *(MDL)*	<1 UG/L *(1)*	<1 UG/L *(1)*	--	--	--
XYL -S- -HOU *(MDL)*	--	--	<125 UG/KG *(125)*	<125 UG/KG *(125)*	<125 UG/KG *(125)*

Signatures of approval indicate quality assurance-quality control verification of analytical results, billing and enclosed documentation.

Approvals: Brenda F Castle Date: 5/25/90 Date: 5-25-90

ENSR

ENSR Labs-Houston

Analytical Report
05/22/90 09:13

Fina	**Field ID:** US-A		Date Sampled: 05/11/90
Proj. No.: 9500-058-230	**Lab ID:** 1		Time Sampled: 1000
Lab No.: A4246	**Matrix:** WATER	(COMPOSITE)	Date Received:05/12/90

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
BENZ - - -HOU BENZENE EPA SW-846: 8020, GC	<1	UG/L	1	05/15/90
EB - - -HOU ETHYL BENZENE EPA SW-846: 8020, GC	<1	UG/L	1	05/15/90
FORM - - -KEM FORMALDEHYDE NIOSH #3500	<0.250	MG/L	0.250	05/14/90
STYRN- - -HOU STYRENE EPA SW-846: 8020, GC	<1	UG/L	1	05/15/90
TOL - - -HOU TOLUENE EPA SW-846: 8020, GC	<1	UG/L	1	05/15/90
XYL - - -HOU XYLENE EPA SW-846: 8020, GC	<1	UG/L	1	05/15/90

ENSR

ENSR Labs-Houston

Analytical Report
05/22/90 09:13

Fina	Field ID: DS-B	Date Sampled: 05/11/90
Proj. No.: 9500-058-230	Lab ID: 2	Time Sampled: 1045
Lab No.: A4246	Matrix: WATER (COMPOSITE)	Date Received:05/12/90

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
BENZ - - -HOU BENZENE EPA SW-846: 8020, GC	<1	UG/L	1	05/15/90
EB - - -HOU ETHYL BENZENE EPA SW-846: 8020, GC	<1	UG/L	1	05/15/90
FORM - - -KEM FORMALDEHYDE NIOSH #3500	<0.025	MG/L	0.025	05/14/90
STYRN- - -HOU STYRENE EPA SW-846: 8020, GC	<1	UG/L	1	05/15/90
TOL - - -HOU TOLUENE EPA SW-846: 8020, GC	<1	UG/L	1	05/15/90
XYL - - -HOU XYLENE EPA SW-846: 8020, GC	<1	UG/L	1	05/15/90

ENSR Labs—Houston

Analytical Report
05/25/90 11:28

Fina	Field ID: HA-1 2-2.5'	Date Sampled: 05/11/90
Proj. No.: 9500-058-230	Lab ID: 3	Time Sampled: 1330
Lab No.: A4246	Matrix: SOIL (GRAB)	Date Received: 05/12/90

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
BENZ -S- -HOU BENZENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
EB -S- -HOU ETHYL BENZENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
FORM -S- -KEM FORMALDEHYDE NIOSH #3500	<0.123	MG/KG	0.123	05/14/90
STYRN-S- -HOU STYRENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
TOL -S- -HOU TOLUENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
XYL -S- -HOU XYLENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90

ENSR Labs-Houston

Analytical Report
05/22/90 09:13

Fina	Field ID: HA-2 2-2.5'	Date Sampled: 05/11/90
Proj. No.: 9500-058-230	Lab ID: 4	Time Sampled: 1350
Lab No.: A4246	Matrix: SOIL (GRAB)	Date Received: 05/12/90

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
BENZ -S- -HOU BENZENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
EB -S- -HOU ETHYL BENZENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
FORM -S- -KEM FORMALDEHYDE NIOSH #3500	<0.300	MG/KG	0.300	05/14/90
STYRN-S- -HOU STYRENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
TOL -S- -HOU TOLUENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
XYL -S- -HOU XYLENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90

ENSR Labs—Houston

Analytical Report
05/22/90 09:13

Fina	**Field ID:** HA-3 2.5-3'	**Date Sampled:** 05/11/90
Proj. No.: 9500-058-230	**Lab ID:** 5	**Time Sampled:** 1415
Lab No.: A4246	**Matrix:** SOIL (GRAB)	**Date Received:** 05/12/90

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
BENZ -S- -HOU BENZENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
EB -S- -HOU ETHYL BENZENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
FORM -S- -KEM FORMALDEHYDE NIOSH #3500	<0.132	MG/KG	0.132	05/14/90
STYRN-S- -HOU STYRENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
TOL -S- -HOU TOLUENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90
XYL -S- -HOU XYLENE ON SOLID EPA SW-846: 8020, GC	<125	UG/KG	125	05/15/90

ENSR LABORATORIES ©
CONSULTING AND ENGINEERING
2925 RICHMOND AVENUE HOUSTON, TX 77098 (713) 520-1495

Analysis Request and Chain of Custody Record

Project no.: 5500-CSG-230
Client/Project Name: TINA
Project Location: CALUMET CITY, ILLINOIS

Lab ID No	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
1	US-A	5-11-90 1000		X	(2) 40 ml VIALS	H_2O	4°C	BTEX, Styrene	
1	US-A	5-11-90 1000		X	(1) 250ml AMB	H_2O	4°C	FORMALDEHYDE	
2	DS-B	5-11-90 1045		X	(2) 40 ml VIALS	H_2O	4°C	BTEX, Styrene	
2	DS-B	5-11-90 1045		X	(1) 250ml AMB	H_2O	4°C	FORMALDEHYDE	
3	HA-1 2-2.5	5-11-90 1330	X		(1) 4 oz clear	SOIL	4°C	BTEX, Styrene	
3	HA-1 2-2.5	5-11-90 1330	X		(1) 120ml AMB	SOIL	4°C	Formaldehyde	
4	HA-2 2-2.5	5-11-90 1350	X		(1) 4 oz clear	SOIL	4°C	BTEX, Styrene	
4	HA-2 2-2.5	5-11-90 1350	X		(1) 120ml AMB	SOIL	4°C	Formaldehyde	
5	HA-3 2.5-3	5-11-90 1415	X		(1) 4 oz clear	SOIL	4°C	BTEX, Styrene	
5	HA-3 2.5-3	5-11-90 1415	X		(1) 120ml AMB	SOIL	4°C	Formaldehyde	

Samplers: (Signature) Tony Dapper	Relinquished by: (Signature) Tony Dapper	Date: 5-11-90 Time: 0800	Received by: (Signature) Tony Dapper
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:
	Relinquished by: (Signature)	Date: Time:	Received by Laboratory: (Signature)	Date: 6/5/90 Time: 1200

Date: 5-11-90 Time: 0800
COC Seal No.: 34281
Contact:

REMARKS:

Data Results To:
1.
2.

Laboratory No.: A4246

ENSR

ENSR LABORATORIES ®
SAMPLE RECEIPT CHECKLIST

Client Fina | Project Number 9500-058-230 | Laboratory Number A4246

1	✓	Shipped	Notes: Fed X # 591348650 4
		Hand Delivered	
2	✓	COC Present on Receipt	Notes:
		No COC	
3	✓	COC Tape on Shipping Container	Notes: Seal # 34281
		No COC Tape on Shipping Container	Notes:
4		Samples Broken/Leaking	Notes: Intact
	✓	Sample Intact on Receipt	
		Other (See Notes)	
5		Ambient on Receipt	Notes:
	✓	Chilled on Receipt	
6	✓	Samples Preserved Correctly	Notes:
		Improper Preservatives	
		N/A (None Recommended)	
		Other (See Notes)	
7	✓	Received Within Holding Time	Notes:
		Not Received Within Holding Time	
		N/A (None Recommended)	
		Other (See Notes)	
8		COC Tapes on Samples	Notes:
	✓	No COC Tapes on Samples	
9		Discrepancies Between COC and Sample Labels	Notes:
	✓	No Discrepancies Noted	
		N/A (No COC Received)	

Additional Comments:

Inspected and Logged in by: Tony Pentecost Date/Time 5/12/10 1200

ENSR CONSULTING AND ENGINEERING-HOUSTON LABORATORY
QUALITY CONTROL LOG
SW 846: 8020; BTEX ANALYSIS

LABORATORY NO: A424B LAB

LAB ID	SPIKED AMT(UG)	CALC AMT(UG)	PERCENT RECOVERY (75-125%)
CC051590	30	23.29	78
CC051590	30	28.85	96
MB051590	30	28.01	93
1	30	26.43	88
2	30	28.64	95
3	30	29.33	98
4	30	28.25	94
5	30	28.97	97

BLANK ANALYSIS DATE: 5/15/90

NO BTEX DETECTED AT STATED METHOD DETECTION LIMITS

COMMENTS:

Al Bemm 5-16-90
ANALYST SIGNATURE

Brenda P. Saide 5/17/90
QAQC COORDINATOR

KEYSTONE ENVIRONMENTAL RESOURCES
3000 TECH CENTER DRIVE
MONROEVILLE, PA 15146

WORK ORDER: M90-05.49

LAB ID	CLIENT ID	MATRIX	RESULT	%SOLIDS
M90-05.49-001	LAB BLANK	WATER	<0.025 mg/L	
M90-05.49-001	LAB BLANK	SOIL	<0.100 mg/Kg	
M90-05.49-002	LAB CONTROL	WATER	91.4%	
M90-05.49-002	LAB CONTROL	SOIL	97.4%	
M90-05.49-003	US-A A4246-1	WATER	<0.250 mg/L	
M90-05.49-004	DS-A A4246-2	WATER	<0.025 mg/L	
M90-05.49-004MS	DS-A A4246-2MS	WATER	69.9%	
M90-05.49-004MSD	DS-A A4246-2MSD	WATER	64.8%	
M90-05.49-005	HA-1 A4246-3	SOIL	<0.123 mg/Kg	[illegible]%
M90-05.49-006	HA-1 A4246-4	SOIL	<0.300 mg/Kg	[illegible]%
M90-05.49-006MS	HA-2 A4246-4MS	SOIL	91.8%	
M90-05.49-006MSD	HA-2 A4246-4MSD	SOIL	95.4%	
M90-05.49-007	HA-3 A4246-5	SOIL	<0.132 mg/Kg	75.5%

SOIL SAMPLE RESULTS ARE ON A DRY WEIGHT BASIS.

SAMPLE US-A A4246-1 HAS AN ELEVATED DETECTION LIMIT DUE TO INTERFERENCE.

SAMPLE HA-2 A4246-4 HAS AN ELEVATED DETECTION LIMIT DUE TO INSUFFICIENT SAMPLE VOLUME. SAMPLE WAS USED AS QUALITY CONTROL SAMPLE.

ANALYST: T.O.
DATE OF ANALYSIS: 05/14/90

Mary Anna Babich
Project Manager

ENSR Labs-Houston

Billing Summary
05/22/90 09:14

Fina
Project No.: 9500-058-230 **Lab Number: A4246**

	Test Code	Description	Number	Cost	Total
1.	BENZ - - -HOU	BENZENE	2	0.00	0.00
		Rush Premium (100 %)	2	0.00	0.00
2.	BENZ -S- -HOU	BENZENE ON SOLID	3	0.00	0.00
		Rush Premium (100 %)	3	0.00	0.00
3.	BETX - - -HOU	BENZ, EB, TOL, XYL	2	100.00	200.00
		Rush Premium (100 %)	2	100.00	200.00
4.	BETX -S- -HOU	BENZ, EB, TOL, XYL	3	125.00	375.00
		Rush Premium (100 %)	3	125.00	375.00
5.	EB - - -HOU	ETHYL BENZENE	2	0.00	0.00
		Rush Premium (100 %)	2	0.00	0.00
6.	EB -S- -HOU	ETHYL BENZENE ON SOLID	3	0.00	0.00
		Rush Premium (100 %)	3	0.00	0.00
7.	FORM - - -KEM	FORMALDEHYDE	2	46.00	92.00
		Rush Premium (100 %)	2	46.00	92.00
8.	FORM -S- -KEM	FORMALDEHYDE	3	46.00	138.00
		Rush Premium (100 %)	3	46.00	138.00
9.	STYRN- - -HOU	STYRENE	2	0.00	0.00
		Rush Premium (100 %)	2	0.00	0.00
10.	STYRN-S- -HOU	STYRENE ON SOLID	3	0.00	0.00
		Rush Premium (100 %)	3	0.00	0.00
11.	TOL - - -HOU	TOLUENE	2	0.00	0.00
		Rush Premium (100 %)	2	0.00	0.00
12.	TOL -S- -HOU	TOLUENE ON SOLID	3	0.00	0.00
		Rush Premium (100 %)	3	0.00	0.00
13.	XYL - - -HOU	XYLENE	2	0.00	0.00
		Rush Premium (100 %)	2	0.00	0.00
14.	XYL -S- -HOU	XYLENE ON SOLID	3	0.00	0.00
		Rush Premium (100 %)	3	0.00	0.00
	Total:				1610.00

Billed 5-25-90

ENSR